

POLITICAL BUDGET CYCLES: A SURVEY OF THE EMPIRICAL LITERATURE

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Abstract

This paper provides a review of recent developments in the theory and evidence of political budget cycles. The theoretical and empirical research on issues of political budget cycles there were many both in terms of discussions, as well as in the context of surveillance. Significant political budget cycles are seen to be primarily a phenomenon of the first elections after the transition to a democratic electoral system. In this article, we first review the basic conceptual arguments and then the formal models before considering the empirical research. There are two key empirical approaches. The first is whether political budget cycles in fact exist in a large number of countries. Recent evidence, discussed below, suggests that they do not on the aggregate budget level, except for new democracies. The second key approach, which underlies the first, is whether manipulation of the budget is an effective tool in gaining votes. Though it is widely believed that deficit spending in an election year in general gains votes for the incumbent, empirical research does not support this view.

Keywords: Budgeting, political budget cycles, deficit, revenues, expenditures, elections

INTRODUCTION

Logical Views in Support of Political Budget Cycles

Since the political budget cycles can be seen as a kind of political cycles in macroeconomic variables, most research on cycles of economic variables including elections, now focus on budget cycles. It considered useful to study such cycles divided by the political cycle in economic activity (political business cycle). A shift in focus comes as a result of the lack of strong empirical evidence for the existence of political business cycles in many countries (Drazen, 2008). Drazen before handle conceptual arguments, invite the applicant to reflect on two key questions. The first question is whether political cycles exist in a number of countries or states. Recent evidence, which is spoken below cycles suggest that they do not exist at the level of the budget, in addition to new democracies. The second key question, which highlights the first, is whether budget manipulation is an effective tool to collect votes and to stay in office. Despite generally believed that budget spending in an election year lead in gathering votes to stay in office, empirical research does not always support this view. There are two main and conflicting views about fiscal manipulation before the elections. The first is that politicians can expect to be involved in such manipulation and it is widespread empirically. In literature there are many explanations for this approach, but a simple logical argument supporting this view is that voters like low taxes and high government spending and they vote to keep the government who meet these. Consequently, the idea opportunistic tenure in government will lead to an expansion of fiscal policy before the elections with a view to increasing the probability of re-election. However, this simple argument is not consistent with rational logic, careful voters are aware in terms of government budget constraints as a given moment and in short periods of time. Since the road or not harmonious way of taxes and government spending deficit enforceable in the election year considered costly, voters do not have to like the deficit in general and especially those who see this deficit motivated by electoral outcomes. In this way these voters do not have to repay the government, which is involved in electoral fraud by the re-election year again. Thus, the alternative view is that voters, especially in developed countries, are "fiscal conservative" who condemn fiscal manipulation by the government. This approach is the way voters reasoning and lies only in cases of developed countries with a consolidated democracy. A second argument is that if voters respond to economic conditions such that the leading pro retention in office current government, it will want policy of fiscal expansion to try and manipulate the results of macroeconomic indicators, performing with economic growth bigger. Thus, the policy of fiscal expansion would help the prospects for re-election and holding office. A second argument is that if voters respond to economic conditions such that the leading pro retention in office current government, it will want policy of fiscal expansion to try and

manipulate the results of macroeconomic indicators, performing with economic growth bigger. Thus, the policy of fiscal expansion would help the prospects for re-election and holding office (Drazen, 2008). A more complicated argument about the fact that why rational voters may respond before the election fiscal expansion is that they have incomplete information on the skills of the candidates or related to the environment created and that a fiscal expansion capabilities gives signals to stay on task, or some features that voters appreciate, because this is effective for the government to be rewarded with the pros. This theory was first formulated by Rogoff (1990), and summarized the discussion of empirical model of political budget cycle. An alternative logical argument is that if voters will punish the deficit of election year or increase spending, as shown in developed countries, electoral manipulations take the form of changes in the composition of the state budget than in its level of general or total deficit. This can take the form of increased spending that voters support, the kind of expenses that are pleasing less or are less noticeable, or the form of expenditures targeted some voters in costs of other voters, who are viewed more less vulnerable to the election.

LITERATURE FOR THE EMPIRICAL MODEL

In literature there are many models that address political budget cycles for investigating these cycles in developed countries and developing countries, but some of them are and others are leading or fit their implications. Thus, the theoretical model that proposes Nordhaus (1975) connects election periods outcome indicators of a country's economy. Functional forms is:

$$Y = f(X, D_ELECT),$$

where, Y is an impact indicator or a result of the country's economy, it can be GDP, unemployment and inflation. D_ELECT is a dummy variable, where 1 is the period of the election and non-election time period is 0. This variable is often divided into two parts: before and after the elections. X represents a group of factors that control other macroeconomic effects. At issue is intended to behave main methods used for research investigating this problem by authors sound field. This will be written for the first empirical evidence to bring the perpetrators and the methods used by them. This section will clarify the model that will be used in the case of this dissertation. Another model is widespread Rogoff (1990), which connects to a utility function relationship of a voter (Γ_t) in this form:

$$\Gamma_t = \sum_{s=t}^T [U(c_s, g_s) + V(k_s) + \eta_s] \beta^{s-t}$$

where, c is private consumption good, g is the "consumption" of public good, k are "investments" in the public good per capita, assuming constant population. U and V are strictly

concave functions. β represents the discount rate relevant voters and T is the time horizon. This differs from the previous model because the dependent variable is the utility function of voters. To continue with this logic, it is reasonable to consider a suitable model to investigate this phenomenon. Brender and Drazen (2004) brought this form of model:

$$f_{i,t} = \sum_k b f_{i,t-k} + \sum c' x_{i,t} + dELEC_t + \mu_i + \varepsilon_{i,t}$$

where, $f_{i,t}$ is an indication of evasion in the land of the period t , $x_{i,t}$ is a vector of variables controller, $ELEC$ is a variable dummy for elections, which take the value 1 in the period of elections and 0 for other periods, μ_i represents the country fixed effects, ε represents the effects of factors included in the model. If the coefficient d is an important results for the model, then it can confirm the presence of the political cycle in the respective budget. Following the model formulated by Brender and Drazen (2004) was formulated another model for investigating political budget cycles by Shi and Svensson (2006). Their model is written as follows:

$$BUDGET_{i,t} = \sum_{j=1}^2 \gamma_j BUDGET_{i,t-j} + \chi' w_{i,t} + \beta ELE_{i,t} + \xi_i + \varepsilon_{i,t}$$

where $BUDGET_{i,t}$ represents the country's budget deficit in period t ; $BUDGET_{i,t-j}$ is the budget deficit previous periods, where j varies from 1 to 2; $w_{i,t}$ is the vector of economic variables that can affect the dependent variable; $ELE_{i,t}$ is a dummy variable, which takes the value 1 in election period and 0 in other periods; ξ effect refers to the specific country-of; ε is the error term. β coefficient is interpreted as the coefficient d at the model formulated by Brender and Drazen (2004).

EMPIRICAL RESULTS FOR THE POLITICAL BUDGET CYCLES

Empirical studies of the political budget cycles starts with the work of Tufte (1978) for the United States, which was followed by a number of other empirical studies in developed countries, as well as those in development. It was strongly believed that political budget cycles are present in developing countries. In contrast, in developed countries, it is expected to have no such cycles. Shi and Svensson (2002) are considered key authors to formulate a more practical method for tracking budgetary and political cycles in theory contributors for bringing evidence of the existence of these cycles, especially for developing countries. Persson and Tabellini (2003) do research on a group of democracies from 1960 to 1998. They found a political cycle in income (income from government as part of the GDP fall before the election), but not to find the political cycle expenditures, transfers or the budget deficit. They argue that the electoral system (proportional faced the majority) and the system of government (parliamentary or presidency) is the key in determining the nature of cycles between countries. To continue Brender and Drazen

(2005) argue that the political cycle of budget deficit in democratic countries is a phenomenon of the young democracy. So, evidence was found that these cycles are statistically significant only in the first few elections after the country has made a transition from being a non-democratic country in a democratic country. Many are the authors who have used the data panel static fixed effects on countries (Sejtz, 2000; Schuknecht, 2000; Persson & Tabellini, 2002; Galli & Rossi, 2002; Brender & Drazen, 2004, Maurel, and Schneider, 2010). More in detail, Sejtz (2000) proves that the political budget cycle does not exist for 11 federal states of West Germany. Part of his analysis were, planned budget, total expenditures, capital expenditures, federal grants, unemployment costs and total revenues. In contrast to this study, comes the results of the study Galli and Rossi (2002) for the same countries for 1974-1994 time. Variables in the analysis are: total expenditure, budget deficit, public administration, health care, education and expenses for infrastructure and social security. According to them, the budget expenditures increased during election periods. To the same conclusion comes Schuknecht (2000), which analyzes the 24 developed countries, and Maurel (2006), which focuses on the 25 countries of the European Union, Bulgaria, Romania and Croatia from 1990 to 2005. Following two preceding studies for West Germany, Schneider (2010) includes the analysis of Germany's federal states from 1970 to 2003. With the deficit rate variable, total spending and social benefits, conclude that in these countries there is no political cycle in budget expenditures. This study's findings vindicate Brender and Drazen (2004) and Brender and Drazen (2005), which reinforced the idea that political budget cycles are initially present in newly democratic countries and who have just undergone the transition. By using the same method (static panel data with fixed effects), Sarantides Katsimi (2012) try to investigate political budget cycle in 19 OECD countries from 1972 to 1999. They confirm the negative effect of elections on income in respect of direct taxes. The study conducted by Klašnja (2008) deserves special attention because it is developed in 25 post-communist countries for the years 1990-2006. This researcher used in his analysis these variables: the budget deficit, the total revenues and expenditures and social transfers (as a percentage of GDP). The conclusion obtained from static panel data with fixed effects is that in these countries there is a growing deficit with 1,05% and total expenses of 0.82% before the elections. Countries with presidential democracy and majoritarian electoral system display political cycle in social transfers and simultaneously reduction of tax revenues. Akhmedov and Zhuravskaya (2004) carry out a survey at the municipal level in Russia for the years 1996-2003, using fixed panel data with static effects and logit. The variables in the analysis are: total expenditure, social spending, spending on education, spending on culture, spending on health care, spending on media costs in the industry, total income tax revenues, the budget deficit, transfers, growth, inflation, wages. In their study they confirmed Rogoff model, as in Russian

municipalities expenses increase during elections. Brender and Drazen (2009) in another study of 74 countries for the years 1970-2003, used logit model. The variable of interest to this study is the ratio of change in the budget to GDP in the election year and the first two years before elections, compared with this report in the elections year and two years after elections for the country concerned. The budget deficit in elections year decreases or there is no statistically significant effect on the chances for re-election is a conclusion of this study. Pettersson -Lidbom (2000) in a study of 288 municipalities in Sweden dedicated to 288 municipalities for the period 1974-1998, used dynamic panel data. Total expenses, tax rate for income and growth are the main variables used in the analysis of the study. The conclusion of this study is consistent with Rogoff model for increased spending and lowered taxes during the municipal election in Sweden. Data analysis with dynamic panel data with GMM estimator is widely used in the literature as a procedure to investigate the relationship of election and budget cycles. Thus, Drazen and Eslava (2005), Rose (2006), Alt and Lassen (2006), Veiga and Veiga (2006), Shi and Svensson (2006) and Naruhiko, Sakurai and Menezes-Filho (2011) embrace this technique to conduct their research. The study conducted by Drazen and Eslava (2005) is often cited in the literature, because they have addressed their research by spending for groups of voters. Their research is conducted on the level of municipalities in Colombia for the period 1992-2000. The variables of interest in the analysis are: current and capital expenditures and investment by the government. The study ends with the conclusion that there is no increase in total expenses before the elections, but on the other hand, current expenditures droop and capital expenditures grow during elections, also has a staff cost increases for temporary staff. A year later, Rose (2006) published his study of the 43 federal states of the US, for the years 1974-1999. Fiscal conditionality on federal borrowing limit fluctuations in countries fiscal policy is the conclusion of this study. The variables used in this study are: the budget deficit, taxes, expenditures and federal grants (per capita). Also Alt and Lassen (2006) are cited in literature, because unlike others they include in their analysis a completely unknown variable, which is the fiscal transparency index. Their study considers 19 OECD countries for the years 1990-1999. Variables analyzed from them are: the budget deficit to GDP and fiscal transparency index. Their findings are very striking, since it appears that countries with polarized politics and lower fiscal transparency experience political budget cycles during election years. Veiga and Veiga (2006) include a significant number of municipalities in Portugal, a total of 278 municipalities for the period 1979-2001. The budget deficit, taxes and expenditures (per capita) are variables of their analysis. According to them opportunistic behavior of local government is proved because before the elections they increase the total costs and focus on the most significant items for

voters. This study follows somewhat the line of reasoning proposed by Drazen and Eslava (2005).

One of the most cited studies in the literature of political budget cycles is the study realized by Shi and Svensson (2006). They see 85 developed and developing countries, in the years 1975 to 1995 and used as variables: the government budget as a percentage of GDP. The conclusion of their search is that the budget deficit increased by about 1% in the election year, and this cycle is evident in developing countries. Naruhiko, Sakurai and Menezes-Filho (2011) have conducted a study for Brazil, in the years 1989 to 2005, using as variables: the budget deficit, current and capital spending and taxes revenues to municipalities. They come to the conclusion that there is a cycle to the local level in accordance with the political budget cycle of Rogoff model. In Brazil there is an increase in the budget deficit, coupled with an increase in current expenditure and declining revenues from local taxes in the period of elections. In literature there are also serious studies that try to capture not only the budget political cycles through the data panel, but also through time series modeling. Some of the studies that have used this analytical technique are: Hallerber and de Souza (2000), Gonzalez (2002), Khemanit (2004) and Vučković (2010).

The study of Hallerber and de Souza (2000) was conducted for 10 new countries of the European Union's and data used extended in years 1990-1999. The budget deficit, money supply and the exchange rate are key variables of their analysis. The search comes up with the conclusion that countries with fixed exchange rates show a rising budget deficit around 1.5% of GDP in pre-election periods, while countries with flexible display an increase in money supply by about 0.14% of GDP ahead of elections if the central bank is independent. In addition, Gonzalez (2002) conducted a study for Mexico, for the years 1957-1997. The variables used are those of Schuknecht (2000). The study concluded by highlighting that capital spending on infrastructure and social transfers confirm the existence of political budget cycles. For the case of the 14 federal states of India is done a study by Khemanit (2004). The data lie in the years 1960-1994 and the analysis variables are similar to those of Drazen and Eslava (2005). According to this study, election year is positively correlated with public investment and negatively correlated with taxes, but despite this, it is not proved a cycle in the budget deficit of these 14 federal states of India. In addition to the above research, the Vučković (2010) used time series analysis to investigate for the political budget cycles in Croatia for the years 1995-2008. The variables analyzed are the same as Brender and Drazen (2004). His conclusion is that there is opportunist cycle in total expenditures (with an increase in the quarter before the elections and a decline in the first quarter after the elections).

Table 1. Summary of political budget cycles literature by method and years

Authors	Methods	Variables	Conclusions
Seitz (2000). 11 federal states of West Germany, 1970-1996	data	Planned budget, total expenditures, capital expenditures, federal grants, costs of unemployment, total revenues	Political budget cycle was not confirmed.
Schuknecht (2000). 24 developed countries, 1973-1992		The budget deficit, and the total revenue expenditure, capital expenditure, current and staff	Total expenses increased before the election, along with an increase in capital expenditure compared with current spending ahead of elections
Persson and Tabellini (2002). 60 countries, 1960-1998		Total costs and revenues, the budget deficit, social spending	Lowered taxes before the election as parliamentary democracies, as well as in the presidential election, but only to those seen after the presidential election and tax costs shall grow.
Galli and Rossi (2002). 11 federal states of West Germany, 1974-1994	static	Total expenditure, budget deficit, public administration, health care, education, roads and social security.	Political budget cycle model is confirmed, as increased budgetary expenditures during election years.
Brender and Drazen (2004). 68 countries, 1960-2001.		Budgetary expenditure and revenue, the fiscal deficit (% of GDP).	Both spending and the budget deficit increased in the elections in "new" democratic countries.
Maurel (2006), 25 countries of the European Union, Bulgaria, Romania and Croatia, 1990-2005		The budget deficit, total expenditures, total income, the monetary aggregate M3.	Increase in total expenditures and budget deficit during the election period in the categories of member countries, "old" and "new".
Klašnja (2008). 25 post-communist countries, 1990-2006		The budget deficit, and the total revenue expenditure, social transfers (as a percentage of GDP)	Increase in the budget deficit by 1,05% and total expenses by 0.82%. Countries with presidential democracy and majoritarian electoral system display cycle in social transfers and simultaneously reduction of tax revenues.
Schneider (2010). West German federal states, 1970-2003	Panel with fixed effects.	Deficit growth rate, total expenditures and social benefits	No budget cycle and the total costs.

Authors	Methods	Variables	Conclusions
Katsimi and Sarantides (2012). 19 OECD countries, 1972-1999		The budget deficit, total expenses and income	The elections confirmed negative effect on income in respect of direct taxes.
Akhmedov and Zhuravskaya (2004). The level of municipalities in Russia, 1996-2003	Static panel data with fixed effects and logit.	Total expenditure, social, in education, in culture, in health care, media, industry, total revenue from taxes, deficit, transfers, growth, inflation and wages	Confirmed Rogoff model, expenses increase during the election year.
Brender and Drazen (2009). 74 countries, 1970-2003	Logit	Report a change in the budget / Gross Domestic Product (GDP), election year and their first two years, compared with this report in the elections and after the elections two years.	The budget deficit in the elections year is lower or there is no statistically significant effect on the chances for reelection.
Petterson-Lidbom (2000). 288 municipalities in Sweden, 1974-1998	Dynamic panel data.	Total expenditures, tax rates for income, growth.	In accordance with Rogoff model, rising costs and lowered taxes during the election year.
Drazen and Eslava (2005). Colombia, the level of municipalities, 1992-2000.	data	Current and capital expenditures, investments	No increase in total expenses before the election. Decrease current expenses and capital increase, as there is an increase in expenditures for temporary staff personnel.
Rose (2006). 43 shtete federale të SHBA, 1974-1999	panel	The budget deficit, taxes, spending, federal grants (per capita)	Fiscal conditionality on federal borrowing limit fluctuations in state fiscal policy.
Alt and Lassen (2006). 19 OECD countries, 1990-1999		Budget deficit to GDP, fiscal transparency index	Countries with polarized politics and fiscal transparency lowest budget policy experience cycles during election years.
Veiga and Veiga (2006). 278 municipalities of Portugal, 1979-2001	Dynamic by GMM.	The budget deficit, taxes and expenditures (per capita).	Opportunistic behavior of local government, before the election they increase the total costs and focus on the most significant items for voters.

Authors	Methods	Variables	Conclusions
Shi and Svensson (2006). 85 developed countries and developing countries, 1975-1995		The budget as a percentage of GDP	The budget deficit increased by about 1% in the election year. It felt a strong impact in developing countries.
Naruhiko, Sakurai and Menezes-Filho (2011). Brazil, 1989-2005		The budget deficit, current and capital spending, tax revenues to municipalities	The existence of the cycle at the local level in accordance with the political cycle Rogoff budget model, increase the budget deficit, coupled with an increase in current expenditure and declining revenues from local taxes in the period of elections.
Hallerber and de Souza (2000). 10 new countries to the European Union, 1990-1999		The budget deficit, money supply and exchange rate	Countries with fixed exchange rates show a rising budget deficit around 1.5% of GDP in pre-election periods, while countries with flexible display an increase in money supply by about 12:14% of GDP before the elections, if the central bank is independent.
Gonzalez (2002). Meksikë, 1957-1997		The budget deficit, and the total revenue expenditure, capital expenditure and social transfers	Capital expenditure on infrastructure and social transfers confirm the existence of political budget cycles.
Khemanit (2004). 14 federal states of India, 1960-1994	Time Series Analysis	Public investment, expenditure and total revenue	The election year is positively correlated with public investment and negatively correlated with taxes, but proved not cycle on the budget deficit.
Vučković (2010). Croatia, 1995-2008		The budget deficit, expenditure and total revenue (% of GDP)	Opportunistic cycle in total expenditure (growth in the quarter before the elections and the decline in the first quarter after the elections).

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

In this paper, we provided a brief review on the current status of both theoretical and empirical literature on political budget cycles. On the theory front, we discuss the new moral hazard-based approach where political budget cycles arise in equilibrium in all elections, independent of the incumbent party's competence level. On the empirical front, we review the empirical studies based on various samples, including developing countries, in different time periods. In general,

these studies confirm the prediction of the moral hazard model. Moreover, it is shown that the sizes of political budget cycles vary dramatically across countries. An important area for future research concerns how the size and especially the composition (taxes vs. spending) of the electoral policy cycle depend on political and institutional features of the country. Shi and Svensson (2002a), Persson and Tabellini (2002), and Gonzalez (2002b), provided some evidence of what type of political and institutional features matter, but more work along these lines is likely to be fruitful. Another important question is how the endogeneity of the timing of elections might affect political budget cycles. In most of the empirical work we discussed above, the election schedule is assumed to be fixed or exogenous to fiscal policies. However, since both the timing of elections and the fiscal policies could be affected by a common set of (unobserved) variables that are not included in the standard regressions, we do not know if the positive association between the incidence of elections and the greater election-year fiscal deficit constitutes a causal relation. Shi and Svensson (2002b) provide the first effort to deal with this issue in a large cross section of countries. They analyze each election in a sample that contain 91 developed and developing countries for a span of 21 years and identify whether or not the election timing is predetermined. This enables them to distinguish between outcomes due to deliberate policy choices and unobserved events that are confounded with both the timing of elections and fiscal policies. Focusing on predetermined elections, they not only confirm that political budget cycles exist in the sample, but provide evidence that the difference in political budget cycles between developing and developed countries is magnified.

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